



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,409	03/08/2001	Gajender Rohilla	CD 00-214	2883
20575	7590	03/17/2005	EXAMINER	
MARGER JOHNSON & MCCOLLOM, P.C. 1030 SW MORRISON STREET PORTLAND, OR 97205			RODRIGUEZ, ARMANDO	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,409

Applicant(s)

ROHILLA, GAJENDER

Examiner

ARMANDO RODRIGUEZ

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7, 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 8-17, 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claims 1-20 are pending.

Response to Arguments

Applicant's arguments filed on January 20, 2005 have been fully considered but they are not persuasive.

After carefully reviewing applicant's arguments on pages 6 and 7 and further reviewing the cited prior art of Bednarz et al (PN 4,709,370), the examiner finds that applicant does not describe a third current in the specifications and does not illustrate a third current in the drawings. Applicant's specification only describes two current sources, where a first current source includes an I_{mod} and the second current source includes $I_{mod} + I_{bias}$; as understood by the examiner when the first transistor is ON the laser receives $I_{mod} + I_{bias}$ and when the second transistor is ON the laser receives I_{bias} , which is the exact operation of the cited prior art in figure 3 as described in column 5 lines 9-35.

The examiner will interpret the cited reference to Bednarz as the combination of current sources (66) and (68) as applicant's second current source because the combination of (66) and (68) provide I_{bias} for biasing the laser and I_{p2} a pulse current (modulation).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

Art Unit: 2828

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 8-17,20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 8,

The specification does not describe the third current, but only describes the circuit as having two current sources. It is not clear what applicant considers a third current, since the laser only receives an I_{bias} or an $I_{bias} + I_{mod}$.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

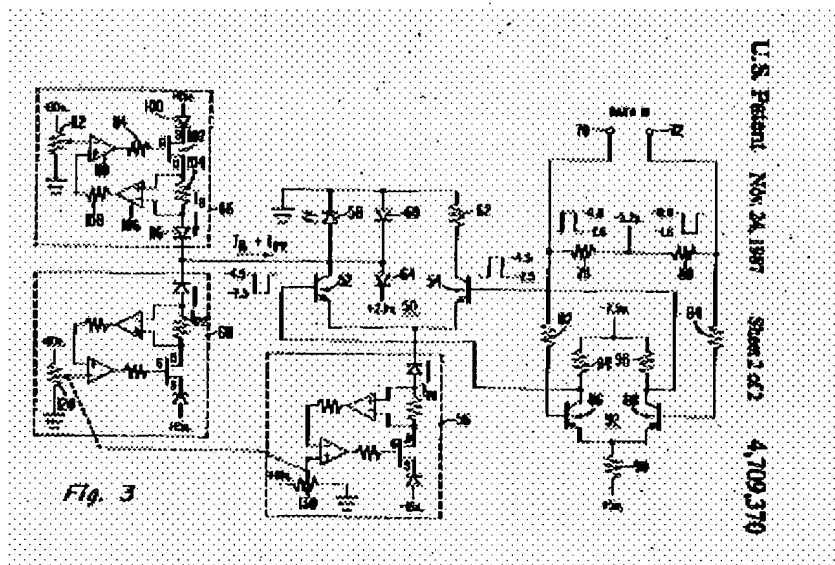
Claims 8-16,20 are rejected under 35 U.S.C. 102(b) as being anticipated by Bednarz et al (PN 4,709,370).

The Bednarz et al reference pertains to a semiconductor laser driver circuit.

Regarding claim 8,

Figure 3 illustrates a circuit having two transistors (52) [applicant's first transistor] and (54) [applicant's second transistor], where the transistors each receive an input

signal [applicant's two inputs], a constant current source (56) [applicant's first current source], which is connected to both transistors (52) and (54), constant current sources (68) and (66) [applicant's second current source], which is connected to transistor (52) and I_{bias} for biasing the laser and I_{p2} a pulse current, as described in column 3 line 53 to column 4 line 3 and column 5 lines 9-35. Column 3 line 67 to column 4 line 1 and column 5 lines 42-43, describes the constant current sources (56) and (68) as substantially equal. As illustrated in figure 3 and described in column 5 line 9-35, current source (56) provides a first current, current sources (66) and (68) provides a second current, when transistor (52) is fully conducting the laser draws I_{bias} and when transistor (54) is fully conducting the laser draws $I_{bias} + I_{p2}$, where I_{p1} and I_{p2} are substantially equal. Thereby, when transistor (52) the laser receives I_{bias} [applicant's third current].



Regarding claim 9,

Column 5 lines 23-34 describes the switching scheme of the transistors (52) and (54), where the second amount of current is delivered to the laser diode when the transistor (54) has a high logic state.

Regarding claim 10,

Column 5 lines 23-34 describes the switching scheme of the transistors (52) and (54), where the third amount of current (I_B) is delivered to the laser diode when the transistor (52) has a high logic state.

Regarding claim 11,

Figure 3 illustrates the use of Bipolar transistors, as described in column 3 lines 53-57 as NPN transistors.

Regarding claims 12,13,

Figure 3 illustrates the inputs connected to the base of the transistors (52) and (54), as described in column 4 lines 40-42.

Regarding claim 14,

Figure 3 illustrates current source (56) connected to the common emitters of the transistors (52) and (54), as described in column 4 lines 1-3.

Regarding claim 15,

Figure 3 illustrates current source (68) connected to the collector of transistor (52).

Regarding claim 16,

Figure 3 illustrates a semiconductor laser diode (58), as described column 3 line 61.

Regarding claim 20,

Figure 3 illustrates the laser diode connected to the collector of transistor (52).

Allowable Subject Matter

Claims 1-7, 18 and 19 are allowed.

The following is an examiner's statement of reasons for allowance:

After reviewing applicant's amendment, arguments and conducting an updated search none of the cited prior arts alone or in combination discloses the claimed driver circuit having the cited limitations of independent claims 1 and 18, where the driver circuit uses a voltage source of up to three volts and provides sufficient headroom to ensure proper operation without the use of an alternating circuit.

After reviewing applicant's amendment, arguments and conducting an updated search none of the cited prior arts alone or in combination discloses the claimed driver circuit having the cited limitations of independent claim 5, where the driver circuit uses a voltage source of up to three volts and where one of the at least two current sources generates a modulation current and the other current source generates a modulation current equal to the modulation current plus a bias current.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: none of the cited prior arts alone or in combination discloses the claimed driver circuit having the cited limitations of dependent claim 17, where the driver circuit uses a voltage source of up to three volts and provides sufficient headroom to ensure proper operation without the use of an alternating circuit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARMANDO RODRIGUEZ whose telephone number is 571-272-1952. The examiner can normally be reached on 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUN HARVEY can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2828

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ARMANDO RODRIGUEZ
Examiner
Art Unit 2828

AR